

**HOUSE FORM AND CULTURAL PERCEPTIONS****EXAMINATION OF THE NEED AND MANIFESTATION OF THIS PRINCIPLE  
IN URBAN PUBLIC HOUSING**

THE DISSERTATION PRESENTED TO THE DEPARTMENT OF  
ARCHITECTURE,  
UNIVERSITY OF MORATUWA,  
SRI LANKA  
FOR THE FINAL EXAMINATION IN M.SC.(ARCHITECTURE)  
AND RIBA PART II EXAMINATION



72<sup>04</sup>  
72(043)

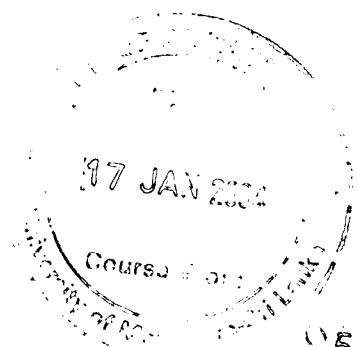
**DE SILVA T.A.H.**  
DEPARTMENT OF ARCHITECTURE  
UNIVERSITY OF MORATUWA  
SRI LANKA  
JANUARY 2004

University of Moratuwa



85462

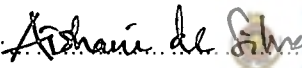
85462



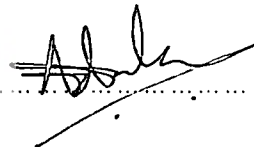
85462

## **Declaration**

I declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this university or to any other institution for a degree, diploma or other qualification.

Signed:  (student's signature) .....  
(Name of the student: T.A.H. De Silva)

University of Moratuwa, Sri Lanka  
www.lib.mrt.ac.lk



## **Acknowledgements**

Firstly, I need to thank my parents for all the support, encouragement, comments, assistance, insight and inspiration I received from them, which was what made this dissertation what it is. My sister deserves a special thank you as well for being so sweet and helping me out when I really needed it – and of course for being her and being around. A special thank you goes for Shehal who was there through out as a source of strength, helping me in numerous ways and finally handling all the printing work and the running around that had to be done to get this book made.

Another big thank you to all the above mentioned people for their unexpected exercising of virtually non-existing levels of patients with my stress and crankiness during the time I was writing this.

My heartfelt gratitude goes out to Archt. Vidura Sri Nammuni –Head, department of Architecture of my university for being such a source of inspiration with all the encouragement, comments, guidance, help and valuable time given to me during this time. For being an extraordinary teacher whose dedication and knowledge is a rare finding anywhere in the world.

Another thank you goes out to Archt. Prasanna Kulathilake for his dedication, persistence and all the help and guidance given during this period of time. A thank you to my supervisor Archt. Channa Daswatte for all the valuable comments, encouragement and time given to me. Archt. D.P. Chandrasekara for taking the time to guide, advice and help me in my work – specially with the research aspect of the dissertation. Another heartfelt thank you to Archt. Chris de Saram for his kind words, guidance, encouragement, time and for believing in me and letting me know that.

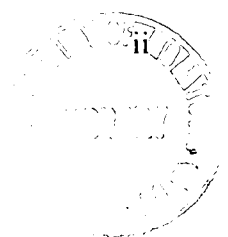
Most importantly a BIG thank you to all my friends. Rukmal Thilakaratne and Malinda Liyanage for being there as a source of strength and assistance at all times and most of all – as good friends (who are always there at the time of need). Harsha Peiris and Asanga Jayasundara for all the support. Samantha Senanayake for all the support and concern shown. Bhashwara Senanka, Thilan Kottigoda and Thushari Wijesundara for encouragement and support given to me.

Mr. and Mrs. Malcom Dias, Benjamin and family, and Mrs. Thamara Ranasinghe for their help in organizing visits for case studies.

A thank you to all others who helped me out and assisted me at least in thought.

Lastly to aunty Srivi for her prayers.

THANK YOU!



**HOUSE FORM AND CULTURAL PERCEPTIONS: EXAMINATION OF THE NEED AND  
MANIFESTATION OF THIS PRINCIPLE IN URBAN PUBLIC HOUSING**

**CONTENTS**

	PAGE NO.
DECLARATION	i
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
ABSTRACT	vii

**INTRODUCTION**

0.1 PREAMBLE	1
0.2 TOPIC PROPOSAL	2
0.2.1 OBSERVATIONS/ISSUE	2
0.2.2 CRITICALITY	3
0.2.3 POSSIBLE CAUSES FOR UNSUCCESSFUL HOUSING SOLUTIONS	5
0.2.3.1 THE HYPOTHESIS	5
0.2.4 THE STUDY AS THE REMEDY	6
0.2.4.1 THE INTENTION OF THE STUDY	6
0.2.4.2 METHOD OF WORK	7
0.2.4.3 SCOPE AND LIMITATIONS	8
0.3 LINE OF REASONING	9

## **CHAPTER ONE: ARCHITECTURE AS A SOCIAL ART**

1.1 ARCHITECTURE	10
1.1.1 A WAY OF EXPRESSION	11
1.1.2 A WAY OF INFLUENCING HUMAN BEHAVIOUR	13
1.1.3 A WAY OF CREATING A PLACE	14
1.1.4 SOCIAL SYMBOLISM IN HOUSING	16
1.1.4.1 HOUSING	18
1.1.4.2 LAYOUT AND SETTLEMENT PATTERNS	18
1.1.4.3 HOUSE/HOUSING FORM AND ITS COMPONENTS	20
1.1.4.4 DETERMINANTS OF FORM	22
◦ CLIMATE AND SETTLEMENT	22
◦ MATERIALS, CONSTRUCTION AND TECHNOLOGY	24
◦ SITE CONDITIONS	27
◦ DEFENCE NEEDS	28
◦ ECONOMICS	28
◦ CULTURE AND RELIGION	29
A. COMMUNITIES	30
B. USER	31
1.2 THE USER	31
1.2.1 USER TYPES	32
1.2.1.1 PRIMARY USERS	32
1.2.1.2 SECONDARY USERS	33
1.2.2 NEEDS AND ASPIRATIONS OF A USER	33
1.2.2.1 PSYCHOLOGICAL	34
1.2.2.2 PHYSICAL	34
1.2.2.3 SOCIAL	35
1.2.2.4 CULTURAL	36
1.2.3 BACKGROUND AND EXPERIENCES	37
CONCLUDING REMARKS	

## **CHAPTER TWO: THE IMPACT OF CULTURE ON USER PERCEPTION**

2.1 CULTURE	38
2.1.1 DETERMINANTS OF CULTURE	39
2.1.1.1 CLIMATE AND NATURAL ENVIRONMENT	40
2.1.1.2 SOCIAL STRUCTURE	41
2.1.1.3 SOCIO ECONOMIC CONDITIONS	43
2.1.1.4 RELIGION	43
2.1.1.5 COMMUNAL ATTITUDE AND SOCIAL RELATIONSHIPS	45
2.2 PERCEPTIONS	46
2.2.1 SOCIO CULTURAL PERCEPTIONS	47
2.2.1.1 SOCIAL COGNITION	49
2.2.1.2 ATTITUDES AND REACTION	51
2.2.1.3 BELIEFS, RELIGION AND SUPERSTITION	52
2.2.1.4 SOCIAL BEHAVIOUR	54
2.2.1.5 LIVING AND LIFESTYLE	55
• COMMUNITY LIVING	55
• LIFE STYLE	56
2.3 HOUSE FORM AND CULTURAL PERCEPTION	61
2.3.1 SURVEY 1 – CHILDREN'S IMAGE OF THEIR DREAM HOUSE (CHILDREN OF DIFFERENT CULTURES AND BACKGROUNDS)	63
2.3.2 SURVEY 2 – ADULTS' IMAGE OF THEIR DREAM HOUSE (SRI LANKAN ADULTS OF DIFFERENT SOCIO CULTURAL BACKGROUNDS)	66
2.3.3 RELATIONSHIP BETWEEN THE PERCEPTION OF HOUSE FORM AND SOCIO CULTURAL BACKGROUND	68
CONCLUDING REMARKS	69

### **CHAPTER THREE: THE IMPACT OF CULTURE ON USER PERCEPTION CULTURE**

3.1 SHELTER AND HOUSING DESIGN	70
3.1.1 URBAN HOUSING NEED	71
3.1.2 URBAN HOUSING NEED AND POLICIES IN SRI LANKA	73
3.1.3 LIMITATIONS OF URBAN PUBLIC HOUSING	76
3.1.4 NEED FOR THE MANIFESTATION OF CULTURAL PERCEPTION IN PUBLIC HOUSING	76
3.2 ARCHITECTURAL RESPONSE TO SOCIO-CULTURAL NEEDS OF PUBLIC HOUSING	82
3.2.1 ROLE OF ARCHITECT WHEN DESIGNING	86
3.2.2 PSYCHO SOCIO PROFILE	86
3.2.3 RESPONDING TO PSYCHO SOCIO PROFILE	93
3.3 MANIFESTATION OF CULTURAL PERCEPTIONS IN PUBLIC HOUSING DESIGN	94
3.3.1 CASE STUDY 1 – JAYAWADANAGAMA HOUSING SCHEME	95
• LOCATION	97
• LANDSCAPE AND TOPOGRAPHY	97
3.3.1.1 LAYOUT	99
3.3.1.2 HOUSE FORMS	100
3.3.1.3 REVIEW ON ARCHITECTURAL RESPONSE TO CULTURAL PERCEPTIONS	114
3.3.2 CASE STUDY 2 – SUMMIT FLATS HOUSING SCHEME	115
• LOCATION	116
3.3.2.1 LAYOUT	117
3.3.2.2 HOUSE FORMS	120
3.3.2.3 REVIEW ON ARCHITECTURAL RESPONSE TO CULTURAL PERCEPTIONS	122
3.4 DETERMINATION OF CULTURAL PERCEPTION THROUGH SOCIO- CULTURAL NEEDS IN HOUSING	123
CONCLUDING REMARKS	124
CONCLUSION	125
BIBILIOGRAPHY	127

## **Abstract**

This dissertation is an attempt to show the connection between the perceptions people have about what a house form should be like due to their cultural and social background, and the importance of manifesting these perceptions in architectural design of housing.

Special attention is paid to the need and importance in the manifestation of cultural perceptions in house form design when it comes to public housing. Attempts to relate to the user and their requirements made by other architects are looked into and possible methods that can be used for this purpose are pointed out and discussed.

Case studies on Jayawadanagama housing scheme and Summit Flats are done as examples to show different methods adopted in public housing design in Sri Lanka and their success and failures discussed.



University of Moratuwa, Sri Lanka  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)





University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

---

## INTRODUCTION

## **0.1 Preamble**

The primary concern and existence of architecture depends on People. Hence, Architectural design should also be approached through People. Different people in different cultures have varying psychological and sociological inclinations and aspirations as to what they want and how they want to live. Therefore if individual analysis of each user is not possible, at least a good cultural and sociological analysis of user communities should be made, and through that those needs should be catered to with appropriate architectural solutions.

Another important aspect is the relationship of different communities and cultures to nature and their surroundings. It should be noted that not every culture in the world relate to their outside environment with the same attitude or enthusiasm as another culture, each having different sets of values or climatic conditions.



University of Moratuwa, Sri Lanka  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

Each culture is formed through a set of values and norms which are established through a long period of time and help organize and structure their life. This in turn leads to a particular behavioral pattern among the people of that culture, establishing a certain hierarchy between people of different age, gender and civic status etc determining the different ways in which they interact with each other.

To maintain these unique relationships between people of a given culture, they need a certain spatial arrangement in their dwellings (which include forms of individual houses and specific patterns of arrangements) that facilitate this behavioral need. Hence the basic Form of the Dwelling derive from these constraints which holds the cultural perception of the spaces which allow people to retain their life style is what determines their identity.

Finding this out and creating the exactly 'right' Form is the architects prime responsibility and this is what separates his role from that of a planner or a builder.

## **0.2 Topic Proposal**

### **0.2.1 Observation/Issue**

*"In the postindustrial society of the 20th century, housing in developing nations and poor parts of developed countries continues to be of insufficient quality and does not meet the demand of some parts of the population."*<sup>1</sup>

In urban towns housing is seen as simply permanent shelter for human habitation. Therefore a lot of the housing schemes or public houses that has been built address the need for shelter and respond quantitatively to solve it. But the qualitative aspect of what makes the house a home for the user has not been addressed effectively. Hence it does not give the user the feeling of belonging or the personal element that allows them to make the house in which they live, a true home for their family.

---

<sup>1</sup>"Housing (shelter)." *Microsoft® Encarta® Encyclopedia 2001*. © 1993-2000 Microsoft Corporation. All rights reserved.

### 0.2.2 Criticality

*"The effects of bad housing can be measured directly. It lessens industrial efficiency, encourages inferior citizenship, lowers the standard of family life, and deprives people of reasonable comfort. There are also direct relationships between poor housing and poor health, and between poor housing and crime."*<sup>2</sup>

The safest and the most comfortable space for one should be their home. The house being the space that provides ones anchorage and a base from which they grow and extend in to the rest of the world, it will be a determining factor of ones mental and psychological shaping.

Each person has an idea of what a house is and they relate to a certain type of spatial arrangement or a built form that allows for certain activities essential to the life style of their background to take place.

The way spaces of the house relate to the outside, the spatial penetration across the house and the circulation pattern of the house are distinctly associated with different communities depending on their socio-cultural background. Culture is the knowledge, beliefs and values etc that molds the social thinking of any individual, and this is what enables one to perceive the rest of the world in a meaningful manner.

---

<sup>2</sup>"Economic Conditions of the South." *Microsoft® Encarta® Encyclopedia 2001*. © 1993-2000 Microsoft Corporation. All rights reserved.

Hence each person has a cultural perception of what they need as a house in order to experience the essence of a home with the human activities that he needs to make happen to achieve the psychological relaxation one expects and needs to get from their home.

This mental relaxation that should be possible to be achieved from a house is necessary for any person to become mentally balanced. Therefore the lack of this affects the psychology and the balance of people who actually work for the city, making the productivity of the city highly inefficient.

Hence the form of the house should be derived according to the cultural perception of space and its use in a house in order to maintain a balanced psychological condition in the workforce of the city in order to achieve efficiency of the city.

Due to land limitations and the influx of people in cities, the concept of mass housing for the public has become a more realistic solution to individual housing.

Hence when housing *groups of people* in public housing schemes, it is all the more important to derive a method of designing housing that cater to a large number of people while still making the houses and the environment fit to larger cultural perceptions in order to make sure the people get what they require both physically and psychologically through the spaces created both inside and around their houses.

If this issue is not rightly handled to deliver a sense of belonging, an identity, privacy and a territoriality to each user, it will not just affect the psychology of one person or family, but that of thousands of people in the city.

### 0.2.3 Possible Causes for Unsuccessful Housing Solutions

- a. The ignorance of the need to address the qualitative aspects of the cultural needs of space and its arrangements when designing houses for people even in urban conditions. Basically the fact that there is such a problem is not seen.
- b. Even when the problem is understood, the need for addressing it is rejected due to physical, economic and political situations as restrictions through financial difficulties to provide quality housing, the need for economizing by designing basic unit houses in the accepted standard for a shelter and to suite technical efficiencies etc in order to provide a larger number of houses to house more people.
- c. The *mechanism* through which it could be achieved is not known by the Architects. The method of how to understand and analyze the cultural issues of the user or how to architecturally resolve these cultural needs when designing a house dwelling is not known.



#### 0.2.3.1 The Hypothesis

When considering the above reasons it is seen that even when the cultural needs are understood, the fundamental need to address this issue when it comes to urban houses is not realised.

Even the most basic form, can be made into a comfortable home if that basic cultural concept of the house, in the users head has been manifested in it.

It is seen that this is mostly true of architect designed housing for the poor. Many lessons though can be learnt from the people designed houses of the shanties. Architect designed houses often become slums due to the lack of the architects understanding the cultural perception of the people they are building for.

Therefore, more than anything else, it is the lack of studying the cultural background of the user and analyzing his/ her psychological needs (or profile) that has made housing today so qualitatively poor and not up to standard.



University of Moratuwa, Sri Lanka  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

## **0.2.4 The Study as the Remedy**

### **0.2.4.1 The Intension of the Study**

This study will look into the urban housing needs of today and attempt to establish that, the idea of what a house is comes through the cultural background of the user and that it is essential to cater to this cultural perception of what a house is in order to provide them with housing which will be psychologically satisfying as much as physically providing shelter.

It will go on to show that, this information about the cultural perception of what the house should be for different people can be collectively studied by doing a psycho-socio profile of the socio-cultural background of the entire community since

it is not possible to analyze and individualize for each and every person when it come to community housing. .

#### **0.2.4.2 Method of Work**

- A look in to how architecture becomes a social art which is purposeless devoid of the people who use it.
- Study of the components and factors affecting house form.
- The way culture and society determines how one perceives the world.
- The idea of 'Home' and how it has been perceived through culture will be studied to show how the house form is derived through cultural needs and conditions – creating a definite perception of the House Form in the minds of the people, which is required for them to be psychologically satisfied in a house as much as gain shelter from it physically.
- A study of the urban housing need, its shortcomings and essential requirements for its improvement will be made.
- Finally the study will look into how it is possible for an architect to deliver this cultural perception of the house, in urban community housing.
- Case studies of community housing projects that has tried to cater to this need will be done to see how it has helped in uplifting the quality of urban community housing.



### **0.2.4.3 Scope and Limitations**

The need to relate to a preconceived cultural perception of what a house is in housing design, is true for every type of house. May it be custom designed individual housing, public housing, flats, apartments or condominiums, in urban or rural context, they still need to psychologically and physically satisfy the user.

This study will be looking into the house form in general through points of views of architecture and culture initially and then relating it to “urban community housing” requirements.

The discussions and examples will be made in a generalized manner with specific examples to give the broader idea of the concept in discussion rather than detailing each concept in depth. This is done so since there are a number of such concepts that needs to be discussed in order to clarify the main idea of the topic.

The study will use relevant design project done in the first year of M.Sc. architecture at the University of Moratuwa as examples to demonstrate some of the possible strategies that can be used in housing design.

There will be case studies done from two housing schemes in Colombo to demonstrate successful and unsuccessful attempts of existing public housing solutions in Sri Lanka.

### **0.3 Line of Reasoning**

Housing is an essential need for humans, and the quality of housing affects the mental state and psychological conditions of people. Good housing would mean a way in which both qualitative and quantitative needs of housing are achieved.

In order to achieve this, the houses in which people live should be made in away that it can become a home for the user.

The idea of 'home' is different in the minds of each person, and it depends strongly on the perceptions one has due to their socio cultural upbringing.

Hence by analyzing the socio cultural backgrounds, it is possible to design housing form in a way that the user himself can perceive it as their home easily.

But the difficult part is when it comes to design for public housing; since there is no specific user. But here, it should be still possible to achieve qualitative results by analyzing the *user group* as a whole to see what their cultural perceptions are about community living and homes, and catering the housing so that these are achieved successfully and leave room for flexible adjustments so that the user himself can adjust it with his lifestyle and truly personalize it – but with the main form of it still in tact since it reflects what they desire as a home deep inside.